

5.10.6 Water Heater Efficiencies

<u>Residential Type</u>	<u>Efficiency Parameter (1)</u>	<u>2002 Stock Efficiency</u>	<u>Minimum New Efficiency (2)</u>	<u>2004 Best-Available New Efficiency</u>
Electric Storage	EF	0.87	0.92	0.95
Electric Instantaneous	EF	(3)	0.93	0.99
Electric Heat Pump	EF	(3)	0.92	2.40
Gas-Fired Storage	EF	0.55	0.59	0.65
Gas-Fired Instantaneous	EF	(3)	0.54	0.85
Oil-Fired Storage	EF	0.55	0.51	0.68
Solar	SEF	N.A.	0.80	4.80
<u>Commercial Type</u>				
Electric Storage	Thermal Efficiency	96%	98%	98%
Gas-Fired Storage	Thermal Efficiency	76%	80%	94%
Oil-Fired Storage	Thermal Efficiency	75%	78%	82%

Note(s): 1) EF = energy factor and SEF = solar energy factor, which is the hot water energy *delivered* by the solar system divided by the electric or gas energy input to the system. 2) Based on 40 gallon tank. 3) Included in storage stock efficiency.

Source(s): EIA, Supplement to the AEO 2004, Jan. 2004, Table 21 and Table 22 for stock efficiencies; GAMA, Consumer's Directory of Certified Efficiency Ratings for the Residential and Water Heating Equipment, May 2004 for best available efficiencies and minimum efficiencies; and SRCC, Summary of SRCC Certified Solar Collector and Water Heating System Ratings, Apr. 2000, p. S-16 - S-20 for SEFs, Table 2.2, p. 4.